U.S. Serial No. 09/171,081

Attorney Docket No.: 39415-0005

AMENDMENTS

Amendments in the claims:

Claims 1-35. (canceled).

Claim 36. (currently amended) A process for producing clavulanic acid or a salt thereof,

comprising:

(a) fermenting a clavulanic acid-producing species of Streptomyces in a fermentation

broth containing sources of assimilable carbon, nitrogen, and phosphorus, wherein after the

phosphorus source initially present in the starting medium is consumed, the concentration of

assimilable phosphorus is maintained in the fermentation broth is less than 0.15% w/v, and

wherein said fermentation comprises a growth phase and a stationary phase; and,

(b) growing the species at an assimilable phosphorus concentration of between

0.0015% w/v to less than and 0.15% w/v during [[said]] the growth phase of fermentation,

after which the concentration of said assimilable phosphorus is allowed to decrease, and

[[c]](b) isolating the clavulanic acid, or a salt thereof, from the fermentation broth.

wherein the phosphorus concentration is allowed to decrease after cessation of the growth

phase.

Claim 37. (canceled).

Claim 38. (currently amended) The process of Claim 36, wherein the concentration of said

assimilable phosphorus is allowed to decrease to a low value 0.00 % w/v after a fermentation

time of 40 hours.

U.S. Serial No. 09/171,081

Attorney Docket No.: 39415-0005

Claims 39-41. (canceled).

Claim 42. (previously presented) The process of Claim 41, wherein no source of assimilable phosphorus is used after a fermentation time of 40 hours.

Claim 43. (previously presented) The process of Claim 36, wherein ammonia is not the sole said source of assimilable nitrogen.

Claim 44. (previously presented) The process of Claim 43, wherein said source of assimilable nitrogen does not include said ammonia.

Claim 45. (previously presented) The process of Claim 36, wherein said source of assimilable phosphorus is sodium phosphate, potassium phosphate, sodium dihydrogen phosphate, potassium dihydrogen phosphate, disodium hydrogen phosphate, dipotassium hydrogen phosphate, or a mixture thereof.

Claim 46. (previously presented) The process of Claim 45, wherein said source of assimilable phosphorus is sodium dihydrogen phosphate.

Claim 47. (previously presented) The process of Claim 36, wherein said species is Streptomyces clavuligerus, Streptomyces jmonjinensis, Streptomyces katsurahamanus, or Streptomyces sp. P6621.

Claim 48. (previously presented) The process of Claim 36, wherein said fermentation is a fed batch fermentation, with intermittent or continuous use of said source of assimilable phosphorus.

U.S. Serial No. 09/171,081

Attorney Docket No.: 39415-0005

Claim 49. (previously presented) The process of Claim 36, wherein said source of assimilable carbon is selected from the group consisting of glycerol trioleate, glycerol, and corn starch, and said source of assimilable carbon is optionally used during said growth phase of said

fermentation.

Claim 50. (canceled).

Claim 51. (currently amended) The process of Claim 36, wherein said source of assimilable nitrogen includes soy bean flour or ammonium sulfate, and said source of assimilable nitrogen is present in said fermentation broth upon fermentation and <u>is optionally used</u> during said growth phase of said fermentation.

Claims 52-95. (canceled).

Claim 96. (new) The process of Claim 36, wherein ammonium hydroxide or sodium hydroxide is used to maintain the pH of the media process at a value of between 6.8 to 6.9.